

**What is claimed is:**

1. A radio transmitting device comprising radio transmitter circuitry and processing means for processing digital signals to produce a modulating signal for the radio transmitter circuitry, wherein the processing means is configured to implement a protocol stack having a physical layer and a medium access control layer, above the physical layer, providing a plurality of transport channels which are combined to produce said modulating signal, each transport channel being provided with a respective interleaving process.
2. A radio transmitting device according to claim 1, wherein the processing means is configured such that said interleaving processes are re-configurable.
3. A radio transmitting device according to claim 1, wherein at least two of said interleaving processes perform different interleaving methods.
4. A radio transmitting device according to claim 1, wherein the processing means is configured to generate a cyclical redundancy check code and perform channel coding and rate matching for each transport channel.